

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

Claim 1 (Cancelled).

2. (Currently Amended) The permanent-magnet synchronous motor according to claim ~~4~~ 20, wherein N is the positive minimum value of the values calculated from ~~N = p, N = ±2 × p – Z × i1 (i1 is an integer and at least 0)~~ N = ±2p – Z(i1), and ~~N = Z(i1 ± 2)p~~ Z(i1) ± 2p.

3. (Currently Amended) The permanent-magnet synchronous motor according to claim ~~4~~ 20, wherein the pressurizing part comprises a frame that fixes the stator core in position with respect to the frame and rotatably supports one end of the rotor.

Claims 4-19 (Cancelled).

20. (New) A permanent-magnet synchronous motor comprising:
a toroidal stator core having an outer periphery, a plurality of internal radial teeth, and Z slots, each slot separating a pair of teeth, and a coil arranged on the stator core, wherein Z is a natural number;
a rotor having permanent magnets with 2p poles, the rotor being disposed within the toroidal stator core, wherein p is a natural number; and
a pressurizing part that applies a local extreme pressure to the outer periphery of the toroidal stator core, radially inwardly, at each of N locations, wherein
N is any one of positive values of values chosen from values calculated from $N = p$, $N = \pm 2p - Z(i1)$, and $N = Z(i1) \pm 2p$,

i1 is an integer and at least 0, and

the N locations are chosen so that each local extreme pressure applied is aligned with a center line of at least one of the radial teeth.

21. (New) A permanent-magnet synchronous motor comprising:

a toroidal stator core having an outer periphery, a plurality of internal radial teeth, and Z slots, each slot separating a pair of teeth, and a coil arranged on the stator core, wherein Z is a natural number;

a rotor having permanent magnets with 2p poles, the rotor being disposed within the toroidal stator core, wherein p is a natural number; and

a pressurizing part that applies a local extreme pressure to the outer periphery of the toroidal stator core, radially inwardly, at each of N locations, wherein

N is any one of positive values of values chosen from values calculated from $N = p$, $N = \pm 2p - Z(i1)$, and $N = Z(i1) \pm 2p$,

i1 is an integer and at least 0, and

the N locations are chosen so that each local extreme pressure applied is aligned with a center line of at least one of the slots.

22. (New) The permanent-magnet synchronous motor according to claim 21, wherein N is the positive minimum value of the values calculated from $N = \pm 2p - Z(i1)$, and $Z(i1) \pm 2p$.

23. (New) The permanent-magnet synchronous motor according to claim 21, wherein the pressurizing part comprises a frame that fixes the stator core in position with respect to the frame and rotatably supports one end of the rotor.